



# **Dunn County Livestock Operations Study Group**

**Brief Overview of Study Approach  
April 11, 2017**

**Chris Straight, WCWRPC**

# Moratorium

- Adopted on October 19, 2016
- 6-month moratorium on new or expanding livestock facilities if will have 1,000+ a.u.
- Created a Livestock Operations Study Group (LOSG) to consider the following (but not limited to):
  - impact of facilities of 1,000+ a.u. on groundwater, surface water, air quality, and public health and safety
  - gaps and potential actions regarding regulations and enforcement
  - proposing solutions to mitigate problems or shortcoming

Topic	Schedule	Meeting Activities & Goal(s)
Initial Scoping	Meeting 1 – Dec 15	Discuss process and scope. Identify priority impacts & key questions.
Finalize Scope & Initial Work Planning	Meeting 2 – Dec 29	Finalize scope and priority impacts. Commence with work planning.
Exploring Impacts & Related Rules	Meetings 3-9 – Jan thru Mar	Presentations and discussions.
CAFO Tour	Meeting 10 - Apr 10	Increase understanding of operations, required engineering, and alternative practices.
Consensus on Key Findings & Sub-Findings	Meeting 11 – Apr 6	Discuss, identify, and organize Key Findings. LOSG to provide additional findings to staff as homework.
Working Draft Report Development	mid-April (not a meeting)	Begin compiling recommendations and drafting the report.
Finalize Findings & Begin Work on Recommendations	Meeting 12 – Apr 20	Finalize findings. Begin group discussions on recommendations.
Review Recommendations and Working Draft Report	Meeting 13 – Apr 27	Discuss draft report and recommendations. Modify and amend report and recommendations. Schedule additional meeting(s) if needed.
Additional Meetings, if needed	late April-Early May	Continue to discuss and finalize recommendations and study report.
Presentation	mid-to-late May	Present report to County Board

# Project Methodology and Timeline

## Approach...

- Study Group meets on 1<sup>st</sup> and 3<sup>rd</sup> Thursdays @ 10 AM, if possible
- Beginning 1/13/16...Friday morning conference calls with Team Leads and staff on weeks prior to meetings.
- Distribute any reading materials on Friday's or Monday's prior to meetings.
- All materials and reports to be accompanied by an Executive Summary Cover Sheet (or similar)
- At end of meeting, review any “homework” for next meeting. LOSG members encourage to research, prepare report summaries, and read reports.





# Ground Rules

- Must be factual. Provide sources. Base opinions on facts.
- Everyone has an opportunity and responsibility to participate.
- If speaking, get to the point; time is limited!
- Stay focused on the scope and priority impacts. Not everything is a priority.
- No analysis or recommendations specific to an existing or proposed livestock operation in Dunn County.
- Complete assignments on time.
- Be aware of the Open Meetings Law.
- Be realistic, but creative. A strategy may not yet be codified.



# Project Scope

*The study will include comparisons of livestock facilities of various sizes in order to differentiate between impacts, practices, and regulatory tools as needed and as time allows. The study should give special attention to CAFOs as defined by the State in particular.*

# Meetings 1 & 2 – issues, priorities, and work planning

## Dunn County Livestock Operations Study Group

## Work Plan

The purpose of this work plan is to help identify questions and research tasks, and track related progress. A research task may address multiple questions.

### IMPACT/TOPIC: **Water Quality and Quantity (Groundwater and Surface Water)**

Questions/Concerns	Findings?	Specific Research Tasks (e.g., agency, case studies, presenters, literature review, regulations, case law)	Lead Person	Timeline/D eadline
1. TRENDS. Does the impact of CAFOs on groundwater and surface water exceed the impact of non-CAFOs relative to size presently or in the past...say 30 years ago?		Explore/review USGS & SWIMS data		
		Summarize well data over time	Co. Public Health	Mtg 6
		Summarize Dunn Co. groundwater history	Co LCD and Public Health?	Mtg 4 or 6
2. What effect or impact do CAFOs have on regional surface water quality?		Presentation or data from UW-Stout LAKES REU and/or Bill James at UW-Stout		
		WDNR Fisheries Biologist, Mark Hazuga, WDNR, and/or Buzz Sorge, WDNR		
3. How does the potential effect on groundwater differ based on the size of the CAFO and/or the amount of land available to apply manure? And what is allowed or required by regulations for different operations?		Presentation by Kevin Masarik., UW-SP/UW-Ext	Chris, RPC	Mtg 3
4. How does current manure management impact Dunn County's water quality?		Presentation from Dan, County LCD	Dan P., LCD	Mtg 3 & 4
		Debbie Larson, UW-Madison		
		Presentation by Paul Kivlin, UW-RF	Dan P., LCD	Mtg 7
5. What can CAFO's do and how can manure be properly managed to protect water quality? Are there voluntary safeguards we can recommend?		Possible UW Discovery Farms presentation	Chris, RPC	Mtg ??
		Presentation from Agronomist/Soil Sci (Francisco, UW-Ext or Greg Kern, UW-RF)	Mike, UW-Ext	Mtg 5? 6?
		John Sippel, NRCS		
6. How can we monitor and measure water quality?				
7. What can we learn from other counties?		Kewaunee Co LCD conf. call	Bob C.	Mtg 5
		Review Bayfield Co report & actions	Kathy S.	Mtg 6 or 7
		Review WDNR/Kewaunee Groundwater Report		
8. How can the County enforce water quality and/or quantity? Also related to		DATCP presentation by Chris Clayton	Chris, RPC	Mtg 4
		WDNR presentation Leah Nichol	Chris, RPC	Mtg 5
		review and summarize State Laws for the		

# Meetings 1 & 2 – issues, priorities, and work planning

## Dunn County Livestock Operations Study Group

## Work Plan

The purpose of this work plan is to help identify questions and research tasks, and track related progress. A research task may address multiple questions.

### IMPACT/TOPIC: **Air Quality and Odor Management** (strong overlap w/ Public Health)

Questions/Concerns	Key Findings. Did we address the question?	Specific Research Tasks (e.g., agency, case studies, presenters, literature review, regulations, case law)	Lead Person	Timelines
1. What has been done to effectively managed odor in Wisconsin so neighbors to CAFOs can comfortably enjoy their outdoors?		Presentation by Dunn Co Public Health	Co. Public Health	Mtg #6
		also see Public Health tasks		
2. How can the County monitor odor?				
3. Is odor a public health concern? What are the air quality concerns for large operations, and how does it differ by facility size, population (e.g., respiratory problems), etc.?		Review the "Iowa Study"		
		Review the "U of MN/DATCP Study"		

### IMPACT/TOPIC: **Roads and Transportation**

1. What are <u>safe ways to transport</u> manure so there is not <u>high traffic</u> , manure spray irrigation, and leaky pipes?		Summarize related State laws (much covered through presentations)		
2. What is the road damage potential from equipment and/or higher volumes? IOH issues.		County Highway Dept presentation	Bob C.	Mtg 7
		Dan Fedderly, Towns Association presentation?	Bob C.	Mtg 7
3. Should we be concerned with use of public right-of-way for the piping of manure?				

# Project Scope

## Identifying Priority Impacts

- Air Quality includes Odor
- Roads includes R-O-W use and other Transportation
- Public Health not limited to air quality and groundwater
- Some LOSG members wanted to explore, but not enough time....
  - Socio-Economics (positive & negative)
  - Sustainability

**Moratorium  
Specifically  
Mentions:**

**Groundwater**

**Surface Water**

**Air Quality**

**Public Health**

**Safety (roads)**

## These potential impacts were not report priorities:

- animal-to-animal diseases
- property tax implications
- cost of community services (except, maybe, roads?)
- agricultural and general economic impacts
- land use implications and conflicts
- other quality of life implications (e.g., aesthetics, noise)
- climate change
- other?

**The report can recommend future action on other impacts, but they will not be fully studied or explored by May.**

## Meetings 3-9 – Presentations & Reports

- Data gathering relied heavily on presentations
  - At the beginning of next meeting, LOSG discussed highlights from previous meeting presentations
  - Vetted by full LOSG; building consensus
  
- Any LOSG member or staff could introduce a study.
  - Required to prepare a research summary cover page
  - Less vetted by full LOSG; less consensus
  
- All presentations and reports shared via Google Drive

# Dunn County Livestock Operations Study Group

## Presentation Notes

<b>Date:</b>	2/16/17
<b>Presenters(s):</b>	Leah Nichol, Agricultural Runoff Specialist, WDNR Joe Baeten, Water Resources Management Specialist, WDNR Aaron O'Rourke, Water Resources Management Specialist, WDNR
<b>Key Impacts:</b>	<p><i>These potential impacts concern me most:</i></p> <ul style="list-style-type: none"> <li>● WPDES covers manure and process wastewater impacts and “discharge issues” to the waters of the State (groundwater, surface water, wetlands)</li> <li>● Seepage allowed, provided groundwater standards not exceeded</li> <li>● Sandy soils are a “sensitive area” and more prone to leaching; (Joe’s slide #37 for related science).</li> <li>● EC-DNR fully staffed</li> </ul>
<b>Data Needs or Gaps:</b>	<p><i>More information is needed on:</i></p> <ul style="list-style-type: none"> <li>● More data on livestock and farming trends in Dunn County.</li> <li>● SNAP-PLUS (NMP mapping software) - Are there any weakness or local data input that should be considered or strengthened? <ul style="list-style-type: none"> <li>○ Does it consider barnyard and feedlot runoff and practices?</li> <li>○ Does it consider any influences from irrigation (either water or spray manure)?</li> <li>○ While SNAP-PLUS is a field approach, is there an opportunity to collect this data to help calibrate watershed-level SWAT, STEPL, or similar modelling?</li> </ul> </li> <li>● Mortuary areas as part of compost facilities</li> <li>● What is the list of WPDES “restrictive features”?</li> </ul>
	<p><i>Existing policies, rules, or programs do not appear to address:</i></p> <ul style="list-style-type: none"> <li>● Most non-compliances are reported by local entities or public.</li> </ul>

## DUNN COUNTY CAFO STUDY - RESEARCH SUMMARY COVER SHEET

**Very briefly, what impact(s), questions, or concerns are being addressed:**

Farm Animal Mortuary/Disposal response from Leah Nicol

- email is at bottom

**Author of Summary:**

**Date:**

**Source(s) of Information (*with full citation*):**

Nicol, Leah. RE: Farm Animal Mortuary/Disposal. 2017. E-mail.

[Wis. Stat. § 243.13 \(8\)](#)

**Initial Key Findings from Author (*may attached a summary if needed*):**

- Most farms hire a rendering company to pick up carcasses.
  - Compost is possible if compost area meets all zero discharge rules.
- NR 243.13 (8) provides **MORTALITY MANAGEMENT**
  - Animal carcasses may not be disposed of in a manner that results in a discharge of pollutants to surface waters, violates groundwater standards or impairs wetland functional values. Animal carcasses may not be disposed of directly into waters of the state.
  - Carcasses may not be disposed of in liquid manure or process wastewater containment, storage or treatment facilities unless the containment, storage or treatment facility is adequately designed to contain and treat carcasses and the facility has been approved by the department for that use.
  - The permittee shall maintain records of mortality management and disposal methods in accordance with s. [NR 243.19](#).
- 3.2.4 Mortality Management from WPDES permit (same as 243.13(8) above)

# Meeting 11 – Developing Key Findings & Sub-Findings

Key Findings must be...

- ✓ **Factual and (if possible) Sourced.**
- ✓ **General and Comprehensive.** Avoid overly detailed, if possible. No findings specific to an existing or proposed livestock operation in Dunn County.
- ✓ **Important and Essential** for Dunn County. Not everything is a key finding.
- ✓ **Most findings are likely Actionable**
- ✓ **Consistent with the Study Purpose and Scope**  
*(you decided if consistent or important)*

# Meeting 11 – Developing Key Findings & Sub-Findings

## Identify Key Findings → Support your Recommendations

- What did we learn about potential impacts or gaps from the presentations and reports that are most important?
- Do you agree with the draft findings? Would you change or delete?
- Is something missing?



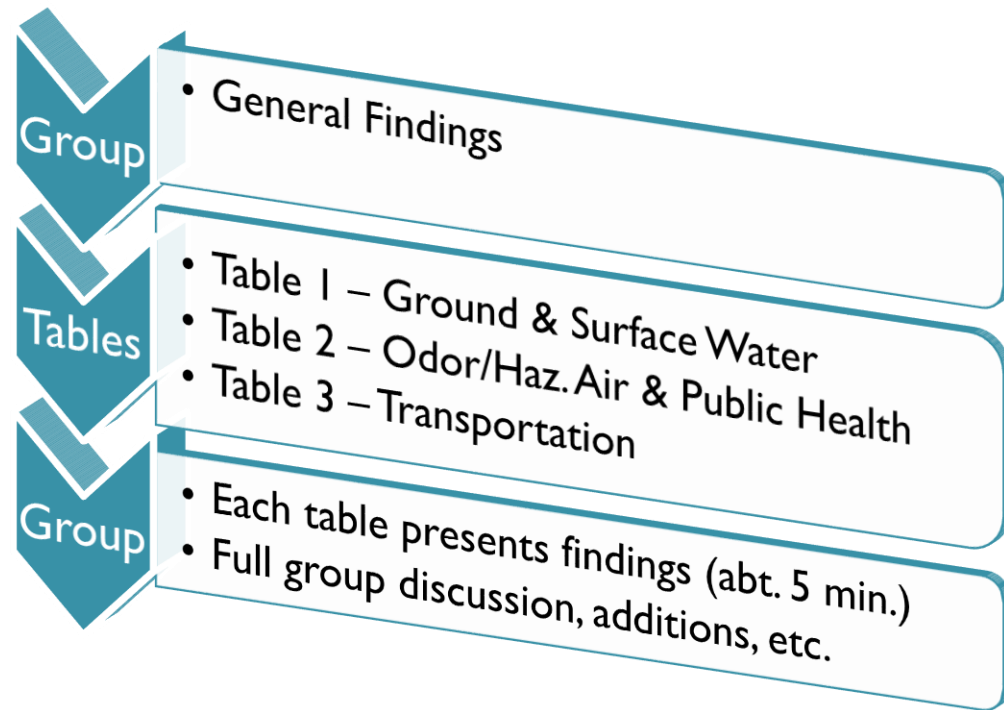
# Consensus

*“ a generally accepted opinion or decision among a group of people; overwhelming agreement”*

- Disagreement is natural and healthy; listen to and respect differing opinions.
- Strive for unanimity, but does not mean unanimity.
- If disagreement occurs, can the statement be modified or reframed so that everyone agrees that they “can live with” the final proposal?
- If your table can’t achieve a consensus, will discuss as a full group.

Draft findings  
taken from the  
presentation and  
report  
summaries.

Draft findings  
are not new;  
just re-organized  
by staff.



# Meeting 11 – Developing Key Findings

General Findings		p.1
What are your “big picture” or general findings? Is more information needed? Any key policies or gaps? Any general statements?		
Y?	Key Findings	Sub-Findings (if any)
x	1. Agriculture is important to the economy and rural fabric of Dunn County. It is Dunn County’s responsibility to protect and balance the agricultural industry and the health, safety, and general welfare of the entire Dunn County community.	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>
x	2. The sizes and types of farms and livestock operations in Dunn County are changing and the number of CAFOs in Wisconsin are increasing.	<ul style="list-style-type: none"> <li>• see WCWRPC agricultural data summary</li> <li>• add farm size numbers from Kathy S.</li> <li>• add livestock type numbers from Kathy S.</li> <li>• <b>There is a growing managed grazing movement.</b></li> <li>• The number of CAFOs with WPDES permits in Wisconsin have increased from 87 in 2000 to over 300 in 2017; the WDNR has recently been receiving about 15 permit applications each year.</li> </ul>
x	3. CAFOs, given their larger size, pose a unique set of risks and the potential for greater negative impacts if something goes wrong due to the large concentrated amounts of manure. However, larger farms often have more resources and opportunities to implement mitigation and management practices to reduce these risks.	
x	4. Non-CAFO’s are regulated differently than CAFO’s.	<ul style="list-style-type: none"> <li>• In terms of reducing water quality risks from manure, the practices (e.g., facility design &amp; maintenance, the manner, timing, &amp; location of landspreading) are frequently more important than the size of the livestock operation. A smaller operation that is poorly managed can have greater negative impacts than a well-operated CAFO.</li> <li>• WDNR visits CAFOs a minimum of twice over a five-year permit cycle. A Summer 2016 audit of WPDES permit management and enforcement was highly critical of WDNR management of the WPDES program and it is important to continue to monitor whether recent WDNR staff increases and reorganization will sufficiently address the audit concerns. (WDNR; Legislative Audit Bureau audit report)</li> <li>• CAFOs are self-reporting to WDNR for WPDES permitting. Soil sampling is required every three years and WPDES permits must be renewed every five years.</li> <li>•</li> </ul>
x	5. Counties cannot adopt livestock siting standards that exceed state water quality standards without WDNR or DATCP approval. (DATCP Options PDF)	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>
x	6. State permitting is “one size fits all.” State	<ul style="list-style-type: none"> <li>•</li> </ul>

General Findings

Findings, Data Gaps, or Policy Gaps

# Current Status

Consensus on Key Findings & Sub-Findings	Meeting 11 – Apr 6	Discuss, identify, and organize Key Findings. LOSG to provide additional findings to staff as homework.
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